

Even Keel Boat Lab



Kit contains:

- 3 corks
- 1 foam square
- 2 rubber bands
- 1 toothpick
- 4 nails
- 1 piece of foil
- 1 star sticker

You will need: a sink or tub of water.



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INSTRUCTIONS

Step 1. Rubber band 3 corks together to make a raft.



Step 2. Poke a toothpick through the foam to make a sail. Add the star sticker if it makes you happy. Stab that toothpick into the middle cork of the raft as shown.



Step 3. Test! Put your sailing raft into a sink or tub of water. Blow into the sail. Observe.

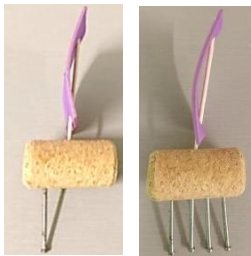


Step 4. Remove the rubber band and 2 side corks, leaving the middle cork with the sail. Rotate the sail 90 degrees.

Step 5. Test! Put your smaller boat in the water and observe it in... action. What happens?



Step 6. Clearly, your boat needs improvement. Add nails one at a time in a row to the bottom of the cork. This will be your **keel** to counterbalance the boat. Check for stability in the water after each nail.



Step 7. Once you've achieved ideal flotation, blow into the sail. How does it move now?

Step 8. Make the boat travel even straighter. Wrap your keel tightly

with foil to create a fin.



Step 9. Test! Put your boat in the water, blow into the sail, and watch it go.



Source:
sciencebuddies.org/stem-activities/diy-toy-sailboat

ANCIENT TECHNOLOGY

People have been using boats for thousands of years across a multitude of civilizations. The use of boats almost certainly predates recorded history.

This Egyptian jar decorated with boat designs dates between 3450–3350 BCE.



Recently, archaeologists identified rock art in Norway from 10,000 to 11,000 years ago that appears to show an ancient sealskin boat.



The oldest still-existing boat is the Pesse canoe, a log boat found in the Netherlands that was made about 10,000 years ago.

<https://www.britannica.com/technology/ship/History-of-ships>

<https://doi.org/10.1080/00293652.2013.777095>